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at a source of a signal associated with the selected channel, wherein the controller operates the motor to drive the antenna to the position based upon a location of the signal source and a location of the antenna, wherein the controller is arranged to receive the signal from the positioned antenna and to process the received signal so as to improve reception of the received signal, and wherein the processing of the received signal is dependent upon the position.

39. The system of claim 38 wherein the controller stores a location of a known offending source, and where the controller processes the received signal by reducing reception of a signal from the known offending source based upon the stored location of the known offending source.

40. The system of claim 39 wherein the antenna has a reception path between the antenna and the signal source, and wherein the controller blocks reception of the signal from the known offending source only if the known offending source is effectively in the reception path between the antenna and the signal source.

41. The system of claim 39 wherein the controller includes an FM trap to notch out a signal from the known offending source.

61 42. The system of claim 38 wherein the controller includes a variable gain amplifier electrically coupled between the antenna and a receiver tuned to the channel selected by the user, wherein the controller processes the received signal by controlling the gain of the variable gain amplifier according to the location of the signal source so as to improve reception of the received signal.

43. The system of claim 38 wherein the location of the antenna is supplied by a global position sensor.

44. The system of claim 38 wherein the controller is arranged to operate the motor in response to a compass reading derived from a compass.

45. The system of claim 38 wherein the controller is arranged to cancel ghosts depending upon the position of the antenna.

46. The system of claim 38 wherein the antenna comprises first and second antennas, and wherein the controller is arranged to switch between the first and second antennas depending upon the channel selected by the user.

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47. The system of claim 38 wherein the location of the signal source and the location of the antenna are global locations.

48. A method of automatically positioning an antenna having a motor coupled thereto comprising:

controlling the motor so as to drive the motor automatically in response to selection of a channel to a position at which the antenna is aimed at a source of a signal associated with the selected channel;

receiving a signal from the positioned antenna;
and,

processing the received signal so as to improve reception of the received signal, wherein the processing of the received signal is dependent upon the position.

49. The method of claim 48 further comprising storing a location of a known offending source, wherein the processing of the received signal comprises reducing

reception of a signal from the known offending source based upon the stored location of the known offending source.

61 50. The method of claim 49 wherein the antenna has a reception path between the antenna and the signal source, and wherein the reducing of reception of a signal from the known offending source comprises blocking reception of the signal from the known offending source only if the known offending source is effectively in the reception path between the antenna and the signal source.

51. The method of claim 49 wherein the reducing of reception of a signal from the known offending source comprises notching out a signal from the known offending source.

52. The method of claim 48 wherein the processing of the received signal comprises controlling the gain of a variable gain amplifier according to the location of the signal source so as to improve reception of the received signal.

53. The method of claim 48 further comprising supplying the location of the antenna by way of a global position sensor.

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54. The method of claim 48 wherein the controlling of the motor comprises driving the motor in response to a compass reading derived from a compass.

55. The method of claim 48 further comprising canceling ghosts depending upon the position of the antenna.

56. The method of claim 48 wherein the antenna comprises first and second antennas, and wherein the method further comprises switching between the first and second antennas depending upon the channel selected by the user.

57. The method of claim 48 wherein the location of the signal source and the location of the antenna are global locations.

Please cancel claims 1-37.